

From the opening to the NW. edge of the slough is nearly 10 miles, and at no point inside it do the soundings agree with those given on either our own or the English charts, but a French chart shows something like this pocket.

The slough is wider across the center than at the opening. The position given is one determined by three persons, each of whom had his own chronometer, and the three positions differed but little over half a mile. The one given is the mean.

There is a similar pocket off Sable Island, with the opening to the southward, which is 5 miles across and in which soundings have been found at a depth of 350 fathoms.

This pocket is of the same character as the one described, but only one position has been observed, which is latitude  $43^{\circ} 17'$  N., longitude  $61^{\circ} 8'$  W. There are several of these pockets on the Banks which are known to the fishermen of Gloucester, as they go to them for halibut.

SCHOONER AUGUSTA H. JOHNSON, *Gloucester, Mass., July, 1885.*

## 88.—THE PEARL FISHERIES OF TAHITI.

By BOUCHON-BRANDELY.

[Abstract from Official Journal.]

The author was sent by the Ministry of Marine and the Colonies on a mission to Tahiti to study questions relating to oyster culture there. The principal product of what Brandely, with "the summer isles of Eden" fresh in his mind, calls "*notre belle et si poétique colonie de Taïti*" is mother-of-pearl. All its trade is due solely to this article, which for a century has regularly attracted vessels to the islands which compose the archipelagoes of Tuamotu, Gambier, and Tubai. The mother-of-pearl which is employed in industry, and especially in French industry, is furnished by various kinds of shells, the most estimated, variegated, and beautiful of which are those of the pearl-oyster. There are two kinds of pearl-oysters; one, known under the name of pintadine (*Meleagrina margaritifera*) is found in China, India, the Red Sea, the Comoro Islands, Northeastern Australia, the Gulf of Mexico, and especially in the Tuamotu and Gambier archipelagoes; the other, more commonly called the pearl-oyster (*Meleagrina radiata*), comes from India, the China Seas, the Antilles, the Red Sea, and Northern Australia. The shell of the former is harder, more tinted, more transparent, and reaches greater dimensions than the latter. Some have been found which have measured 30 centimeters in diameter and weighed more than 10 kilograms, while the *Meleagrina radiata* rarely exceeds 10 centimeters at the most, and never weighs as much as 150 grams. Both varieties supply pearls, those of one kind being at one time more favored, at another time those of the other. This depends on fashion; but, on the whole, those found in the

great pintadine are more beautiful, and the color more transparent, than those of its congener.

The amount of the trade from Tahiti in pearls cannot be stated with accuracy, as there is much clandestine traffic (approximately 300,000 francs), England, Germany, and the United States being the chief markets for the fine pearls. The great pintadine is found in great abundance in the Tuamotu and Gambier Islands. The situation there is very favorable for them; in the clear and limpid waters of the lagoons they have full freedom for development, and are undisturbed by storms. Mother-of-pearl is found in almost every one of the eighty islands which form the archipelagoes Tuamotu and Gambier. These belong to France, having been annexed at the same time as Tahiti and Moorea, and have a population of about 5,000 people, all belonging to the Maori race. Brandely gives an interesting description of these little-known islands and people. The latter appear to hover always on the brink of starvation, as the islands, which are composed mainly of coral sand, produce hardly anything of a vegetable nature. While the neighboring Society Islanders have everything without labor and in abundance, the unfortunate inhabitant of Tuamotu is forced to support existence with coconuts, almost the only fruit-trees which will grow on the sandy beach, with fish and shell-fish which are poisonous for several months of the year, and often they have to kill their dogs for want of other animal food. There are no birds, except the usual sea-birds; no quadrupeds, except those brought by man; no food resources necessary to European life, except what is brought by ships. Although the people are gentle and hospitable, they practice cannibalism. It is pitiless hunger alone which has driven them into this horrible custom.

These people are the chief pearl-divers of the Pacific; indeed it is their only industry, and women and even children take part in it. There is at Anaa, says the writer, a woman who will go down 25 fathoms, and remain under water for three minutes. Nor was she an exception. The dangers of the work are great, for the depths of the lagoons are infested by sharks, against which the divers, being unable to escape, are forced to wage battle, in which life is the stake. No year passes without some disaster from sharks, and when one happens all the divers are seized with terror, and the fishing is stopped for a time. But gradually the imperious wants of life drive them back to the sea again, for mother-of-pearl is the current coin of Tuamotu. With it the native buys the rags which cover him, the little bread and flour which complete his food, and alcohol, "that fatal present of civilization," for which he exhibits a pronounced passion.

Some twenty-five or thirty years ago the trade in mother-of-pearl in the Tuamotu archipelago was very profitable for those engaged in it. For a valueless piece of cloth, a few handfuls of flour, or some rum, the traders got half a ton of mother-of-pearl, worth 1,000 or 2,000 francs, or even fine pearls of which the natives did not

know the value. The archipelagoes were frequented by vessels of all nationalities; mother-of-pearl was abundant, and pearls were less rare than they are now. The number of trading ships increased; there was competition among them, and consequently a higher price to the natives, who fished to meet the new demand with improvident ardor. The consequence is that the lagoons are less productive, and that even the most fertile give manifest signs of exhaustion. The prospect of having the inhabitants of Tuamotu thrown on its hands in a state of helpless destitution, as well as of the disappearance of the principle article of the trade of Tahiti, and an important source of revenue to the colony, alarmed the colonial administration and the ministry of marine and the colonies in Paris. Accordingly Brandely was selected to study the whole subject on the spot. The points to which he was instructed to direct special attention were these: (1) The actual state of the lagoons which produce oysters; are they beginning to be impoverished, and, if so, what is the cause, and what the remedy? (2) Would it be possible to create at Tuamotu, Gambier, Tahiti, and Moorea, for the cultivation of mother-of-pearl, an industry analagous to that existing in France for edible oysters? Would it be possible by this means to supply the natives of Tuamotu with continuous, fixed, remunerative labor, which would render them independent, and remove them from the shameless cupidity of the traders? Could they not be spared the hardships and dangers resulting from the continued practice of diving, and be turned to more fixed sedentary modes of life, by which they might be raised gradually in the social scale? (3) Should the pearl fishing in the archipelagoes be regulated, and, if so, what should be the bases of such regulations? It was on the mixed economical and philanthropic mission here indicated that Brandely went to Tahiti in February last. The statistics did not show any decline in the production of mother-of-pearl, but a careful study on the spot showed that this was due to the great amount of the clandestine traffic, and that the lagoons were growing less productive day by day; that beautiful mother-of-pearl was becoming rarer, and in order nowadays to get oysters of a marketable size the divers are forced to go to even greater depths. Brandely recommends prompt and vigorous measures be taken at once, or the lagoons of Tuamotu will soon be ruined forever. The partial steps already adopted have been useless. The total prohibition of fishing in some of the islands for several years has failed, because it has been found that the pintadine is hermaphrodite, and not, as formerly was believed, unisexual. The cause of the impoverishment of the lagoons is excessive fishing, and nothing else. He thinks that it is possible to create in Tuamotu, Gambier, Tahiti, and Moorea a rational and methodical cultivation of mother-of-pearl oysters, analogous to that existing with regard to edible oysters on the French coasts, and to constitute for the profit of the colony an industrial monopoly which no other country can dispute, for nowhere else can such favorable conditions be found.